AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. Contract ID Code	Page	Of
Cost-Plus-Fixed-Fee	1	14

2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchase Req No.	5. Project No. (If applicable)
P00006	2007JUL18	SEE SCHEDULE	

6. Issued By Code W56HZV

U.S. ARMY TACOM LCMC
AMSTA-AQ-ABGD
PAUL VESELENAK (586)574-7632
WARREN, MICHIGAN 48397-5000
HTTP://CONTRACTING.TACOM.ARMY.MIL
WEAPON SYSTEM: WPN SYS: 00
EMAIL: PAUL.VESELENAK@US.ARMY.MIL

7. Administered By (If other than Item 6) Code S2401A

DCMA TWIN CITIES
B.H. WHIPPLE FEDERAL BUILDING
ROOM 1150
1 FEDERAL DRIVE
FT. SNELLING MN 55111-4007

SCD C **PAS** NONE **ADP PT** HQ0339

8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code)

ALKAN SHELTER, LLC
1701 S. CUSHMAN STREET
FAIRBANKS, AK 99701-6605

TYPE BUSINESS: Other Small Business Performing in U.S.

Code 3DS56 **Facility Code**

☐ **9A. Amendment Of Solicitation No.**

9B. Dated (See Item 11)

☒ **10A. Modification Of Contract/Order No.**
DAAE07-03-C-L149

10B. Dated (See Item 13)
2003DEC12

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ **The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers**
☐ **is extended,** ☐ **is not extended.**

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendments: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting And Appropriation Data (If required)
NO CHANGE TO OBLIGATION DATA

13. THIS ITEM ONLY APPLIES TO MODIFICATIONS OF CONTRACTS/ORDERS

KIND MOD CODE: G

It Modifies The Contract/Order No. As Described In Item 14.

☐ **A. This Change Order is Issued Pursuant To: The Changes Set Forth In Item 14 Are Made In The Contract/Order No. In Item 10A.**

☐ **B. The Above Numbered Contract/Order Is Modified To Reflect The Administrative Changes (such as changes in paying office, appropriation data, etc.) Set Forth In Item 14, Pursuant To The Authority of FAR 43.103(b).**

☒ **C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:** CHANGES CLAUSE (FAR 52.242-3)

☐ **D. Other (Specify type of modification and authority)**

E. IMPORTANT: Contractor ☐ **is not,** ☒ **is required to sign this document and return _____ copies to the Issuing Office.**

14. Description Of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SEE SECOND PAGE FOR DESCRIPTION

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name And Title Of Signer (Type or print)		16A. Name And Title Of Contracting Officer (Type or print)	
		MICHAEL L. CIONI MICHAEL.CIONI@US.ARMY.MIL (586)574-7070	
15B. Contractor/Offeror	**15C. Date Signed**	**16B. United States Of America**	**16C. Date Signed**
_____ **(Signature of person authorized to sign)**		**By** /SIGNED/ **(Signature of Contracting Officer)**	2007JUL18

SECTION A - SUPPLEMENTAL INFORMATION

CONTRACT FOR:	MLTT
PURPOSE OF THIS MODIFICATION:	Revise Phase III Scope of Work
PRIOR CONTRACT AMOUNT:	$3,021,766.69
AMOUNT THIS ACTION:	$ 0.00
TOTAL CONTRACT AMOUNT:	$3,021,766.69

1. This is a bilateral, no-cost, modification to the contract which is issued pursuant to the Section I clause "Changes - Cost Reimbursement" (FAR 52.243-2).

2. The purpose of this Modification P00006 are:

a. Delete the requirements in Phase III to fabricate shelter units for the Light Tactical Truck (International 4200) and a second shelter unit for the Composite Mobile Command Center Trailor that consists of two (2) composite tactical shelters and instead fabricate the following:

(1) One (1) Composite Hybrid ISO Container (8 foot x 8 foot x 20 foot)

(2) One (1) Composite Shop Equipment Contact Maintenance Unit, General Purpose (SECM)

(3) One (1) Composite Quadcon Unit

b. Delete the existing Government Furnished Property (GFP) listed in Section H and replace it with GFP and Government Furnished equipment (GFE) needed for the new shelter units which will now be fabricated under the revised scope.

c. Extend out the contract period of performance to 30 Sep 08 from the previous completion date of 31 Dec 07 to allow the contractor adequate time to perform the revised scope.

3. To implement the above changes the contract is revised as follows:

a. Section C is changed as follows:

(1) C.4 is revised to list and describe the 3 new shelter units (the Hybrid ISO Container, the SECM and the Quadcon Unit) that the contractor will now fabricate under Phase III of the contract and to delete references to the units which the contractor will no longer be fabricating.

(2) C.8.3 is revised to list that the materials or equipment purchased with government funds shall be listed in the Final Report, transferring this requirement from being listed in C.8.4 to C.8.3.

(3) C.8.4 is revised to list that the contractor shall be responsible for shipping the 3 new units now being required (the Hybrid ISO Container, the SECM and the Quadcon Unit) to specified destinations by the contract completion date.

b. Section F is changed as follows:

(1) F.6 is revised to list the new contract completion date of 30 Sep 08.

c. Section H is changed as follows:

(1) H.18.3 is revised to list the new Government Furnished Property (GFP) and Government Furnished Equipment (GFE) being provided under this Modification P00006, which is necessary to help the contractor fabricate the 3 new shelter units, and to delete references to the previous GFP and GFE associated with the shelter units which are being deleted.

(2) H.18.4 is revised to list it as being reserved.

4. As a result of Modification P00006 the total contract amount remains unchanged at $3,021,766.69. The total amount for Phase III of $2,132,000, incorporated in CLIN 0005, remains unchanged. The total amount of $2,024,259.51 for estimated cost under CLIN 0005, remains unchanged. The total amount of $107,740.49, for fixed fee under CLIN 0005, remains unchanged. The parties agree that this no cost settlement constitutes the complete and final equitable adjustment, as a result of the Scope of Work revisions incorporated by this Modification P00006.

5. All other terms and conditions of Contract DAAE07-03-C-L149, as previously modified, remain unchanged.

*** END OF NARRATIVE A0006 ***

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT
SCOPE OF WORK

The contractor, acting as an independent contractor and not as agent of the government, shall provide the necessary personnel, facilities, materials and services to perform the specific tasks listed in the Scope of Work below.

C.1 Purpose/Objective

The objective of this scope of work is to design, develop, and demonstrate a Modular Logistics Transport Technology (MLTT) system for potential future use by, or in conjunction with, military ground vehicles. This project will address current Material Handling Systems, Material Handling Equipment, Material for Manufacturing, Material Candidates, as well as Tracking and Identification Technology. The project will be divided into 2 phases: Phase I and Phase II. Phase I will last from contract award in Dec 03 until 12 Jul 04 and will involve collecting and analyzing data and information which can then be used to help recommend a single MLTT system in Phase II. Phase II will last from the end of Phase I until 13 Jul 05 and will involve selecting one recommended Modular Logistics Transport and Technology system based on the data collected and analyzed in Phase I. A mock-up of this recommended MLTT will then be constructed in Phase II, limited materials testing will then be performed and a final report will be issued summarizing the overall results of this project.

C.1.1 Phase III Objective

The objective for the Phase III effort is for the contractor to design, develop and manufacture composite prototypes for a Future Tactical Vehicle Composite Shelter on 1) a specified International 4200 Truck and 2) Composite Mobile Command Center Trailer mounted on a flat-bed trailer, whihc will include two composite tactical shelters. The contractor shall review shelter retrofit opportunities for the current generation of tactical vehicles. The contractor shall utilize the information on material characteristics obtained in Phase I of this contract to help select the best material for designing these prototypes, emphasizing the attributes of strength, toughness, ballistic characteristics, safety and freedom from in-use deterioration. The contractor shall perform the tasks listed in C.4 during Phase III.

C.2 Phase I - Overview

The contractor shall collect and analyze data/information in Phase I regarding the following five components of MLTTs:

(i) Material Handling Systems
(ii) Material Handling Equipment
(iii) Material
(iv) Material Candidates
(v) Tracking and Identification Technologies

C.2.1 Material Handling Systems

The contractor shall collect detailed information on logistical equipment to determine the scope of existing material handling systems and to identify the challenges they face. The contractor will collect this detailed information by reviewing existing research materials including U.S. Military reports, studies, analyses, and data on packaging, deployment, and dispersal in logistical handling systems. The contractor shall also collect information by conducting interviews with the logistical and materials handling staff of the appropriate user groups including such groups as the Army logisticians within TACOM, the Military Traffic Management Command, the Transportation Engineering Agency at Newport News, VA, and the Director of Packages/Logistics at Picatinny Arsenal.

C.2.2 Material Handling Equipment

The contractor shall collect and analyze data pertaining to the following material handling equipment issues to help select optimal material handling devices:

a) Map the flow of material with estimated weights, locations relative to handling equipment, and physical size.
b) Consider how to optimize equipment through use of multiple systems, such as jack legs, rollbacks, and cranes working in concert on a single vehicle or small team of vehicles.
c) Resolve which types of cranes work best with the various proposed approaches.
d) Identify capacity requirements, for example foot pounds and required winch capacity.
e) Examine the trade-offs of composite versus traditional(mild and high-tensile steel) construction, including cost versus weight savings.
f) Determine the right balance between use of telescopic and articulating cranes, focusing on simplicity versus flexibility.
g) Review material handling system regardless of environment, including outriggers and stability considerations.
h) Evaluate the number of cranes required, and consider whether cranes could be moved into different vehicle mounting bases to reduce the required number.
i) Assess variable attachments to increase and optimize flexibility, such as slings, rotation grapple/knuckle, and special

attachments.

j) Develop ideas about how to adapt the container with special attachment points for optimal crane interface.

k) Determine whether the crane will travel with the ISO container or mini-container (1/3), or if it will stay with the truck.

l) Examine the type of body platform ISO containers will sit on. For example, can individual 1/3 ISO-size containers be brought to the crane on a "live floor" equipped flatbed, or will the crane need to span the entire distance?

m) Minimize personnel required to erect and operate crane and modules.

n) Identify a target cycle time for setup (assembly), load/unload, and disassembly.

o) Decide whether the breakdown of the crane into man-liftable sub-components is a key consideration.

p) Assess the special storage needs of the material handling equipment. Will the crane be stowed in a knock-down state or will it remain at-the-ready? What space will be available for storage if it is required?

q) Choose a crane mounting location to optimize vehicle CG and cargo capacity.

The contractor will determine the best combination of equipment and its general specifications - such as articulating cranes roll-back trailers, and adjustable jack legs. For any articulating or telescopic crane the goal will be to keep the selected equipment extremely flexible (ie. multi-purpose) and quite possibly shared between a team of material handling vehicles.

C.2.3 Material for Manufacturing Material Characteristics

The contractor shall identify the desired characteristics for materials needed for manufacturing a MLTT system by focusing on the following attributes:

(i) Lightweight: minimize weight yet permit higher deliverable payload and less fuel consumption
(ii) Structurally Strong: capable of sustaining large loads, rough handling, and more efficient stacking capabilities
(iii) Reduced Material Volume: increase the useable storage space for supplies
(iv) Leak Proof and Rust Proof: lower inventory loss from weather damage
(v) Climatic Conditions: unaffected by heat or cold, allow successful transport in all climatic conditions
(vi) Low Cost: competitive in cost with with other comparable systems

C.2.4 Material Candidates

The contractor shall examine the following materials to determine their suitability as candidates for use in a proposed MLTT system.

(i) Cored Composite Materials
(ii) Carbon Fiber Materials
(iii) Closed Cell Foam Materials
(iv) Fabric and Resin Materials
(v) Sandwiform
(vi) Moldite

C.2.5 Tracking and Identification Technologies

The contractor shall evaluate the following tracking and identification technologies for potential use in the MLTT system:

(i) Radio Frequency Identification Tags (RFID)
(ii) X-Ray and Gamma Ray Detectors
(iii) Ultrasound

C.2.6 Start of Work Meeting

A Start of Work Meeting will be held within twenty (20) days of contract award at TACOM. The contractor shall prepare and submit Start of Work Meeting Minutes in accordance with Data Item A003, Exhibit A, within seven (7) days after the meeting.

C.2.7 Phase I Travel

The contractor shall make a minimum of 3 total trips and a maximum of 6 total trips to government installations and/or subcontractor facilities during Phase I including a minimum of one (1) trip to TACOM for the Start of Work Meeting

C.2.8 Progress Report

The contractor shall submit a progress report 60 days after award of the contract, in accordance with Data Item A001, Exhibit A, which summarizes the technical progress. This progress report will include the information obtained from reports, studies, analyses, and data obtained from the U.S.military and the results of interviews with users. The progress report will identify challenges in existing

material handling systems, material handling equipment, manufacturing material choices to include material characteristics, material candidates, and tracking and identification technologies.

C.2.9 Phase I Final Report

The contractor will submit a draft Phase I Final Report, in accordance with Data Item A002, Exhibit A, by 10 Jun 04. The government will have 15 days to review the draft Final Report. The contractor will then submit a Phase I Final Report by 12 Jul 04. The Phase I Final Report will describe in detail the results of the research conducted thus far including any significant issues, problems, and accomplishments. A focus of the Phase I Final Report will be presenting the information and analysis which will be pertinent to recommending a specific proposed Modular Logistics Transportation Technology system in Phase II taking into account the data and information obtained in Phase I regarding: Materials Handling Systems, Materials Handling Equipment, Materials, Material Candidates, and Tracking and Identification Technologies. The Final Report will include concept drawings of potential systems, review and analysis of container tracking and identification systems, review and analysis of existing logistics handling systems and proposed testing requirements for a MLTT system which will be recommended in Phase II. Finally, the Phase I Final Report shall include test procedures which will be applied to the MLTT system which will be proposed and recommended in the Phase II portion of this scope of work (see C.3).

C.2.10 Phase I Period of Performance

Phase I will be completed by 12 Jul 04.

C.2.11 Phase I Deliverables

The contractor shall provide the following required deliverables under Phase I:

a) Start of Work Meeting Minutes submitted within seven (7) days after the Phase I Start of Work Meeting, submitted in accordance with Data Item A003, Exhibit A.

b) Progress Report submitted 60 days after award of the contract in accordance with Data Item A002, Exhibit A.

c) Phase I draft Final Report submitted by 10 Jun 04, in accordance with Data Item A002, Exhibit A, and C.2.9.including, but not limited to, the following specific items:

(1) Concept drawings of at least 2 potential MLTT systems
(2) Review/analysis of potential materials including performance and cost data
(3) Review/analysis of container/material tracking and identification systems which will include technical performance data
(4) Review/analysis of existing logistics handling systems including equipment capabilities, specifications, and photos.
(5) Recommended testing requirements for Phase II container/hardware

d) Phase I Final Report submitted by 12 Jul 04, and after receipt of the government's comments on the draft Final Report, in accordance with Data Item A002, Exhibit A and C.2.9.

C.3 PHASE II -_Overview

Phase II will be funded on an incremental basis, as set forth in Section B of the contract. The contractor shall not begin any work under Phase II, including the specific tasks set forth in C.3 until or unless the incremental funding for Phase II, as set forth in the funding schedule listed in Provision B.5.2 has been added to the contract by the government to fund performance under Phase II. The objective of this scope of work for Phase II is to design, develop, and demonstrate a Modular Logistics Transport Technology (MLTT) system for potential future use by, or in conjunction with, miltary ground vehicles.

Phase II of the MLTT Modular Logistics Transport Technology project will narrow the focus of investigation from the broad scope defined under the Phase I Work Statement to the primary objectives of Phase II. By narrowing the scope, the problem-solving process will devote in-depth effort to development of the proposed MLTT design concept, identifying its attributes, demonstrating these attributes in a sclae model mockup, and submit a final Phase II Report, summarizing Alkan Shelter LLC's findings and recommendations.

Phase II will focus on the development of an intermodal system of transporting diverse classes of supplies worldwide in ISO containers, 463L pallets, and other configurations in an efficient, safe, and cost effective manner to be delivered on demand in a coordianted effort to the battlefield in supply vehicles. The Modular Logistics Transport Technology (shelter/container) will be compatible with current material handling equipment technology such as forklift trucks, gantry and boom cranes. It will be compatible with tracked, wheeled, and towed miltary combat service support vehicles such as the RTCC, RTCH, HMMWV, HEMTT, PLS, FMTV, MTV, and ATLAS. The logicistical container will lend itself to an optimum distribution system, support conveyance mobility, minimize manpower, and reduce material handling and logistics impact. The MLTT concept will be compatible with new systems under development such as the Future

Combat Systems (FCS), the Future Tactical Truck System (FTSS), the Smart Truck, and future joint logistical programs, as that information becomes available to the contractor.

During Phase II the contractor shall perform the following key actions:

a) Recommend one specific MLTT system based on his analysis of the data/information collected in Phase I.
b) Construct a Final Design System Concept physical scale model mockup (table top size) recommended MLTT system.
c) Research the usage of special materials (composite, etc.), apply results to the design, and conduct limited materials testing related to the recommended MLTT system.
d) Submit a Final Report which provides a detailed description of the results of the Phase II effort and research including any significant findings, issues, accomplishments, problems, and recommendations.
e) The contractor shall consider the following criteria in recommending and designing a final MLTT system and MLTT design concept: Compatibility and Flexibility, Reusability and Disposability, Collapsibility, Volume and Compartmentalization, and Structural Integrity.
f) The contractor shall perform limited Finite Element Analysis for major components of the conceptual design.
g) The contractor shall construct one full-size, non-watertight, 1,500 pound (lb) capacity MLTT container.
h) The contractor shall research, prepare and submit a Container Standardization for Joint Operations Report as an addendum to the Phase II Final Report.

C.3.1 DELETED

C.3.2 DELETED

C.3.3 Material for Manufacturing

The contractor will utilize the information on material characteristics obtained in Phase I of this effort to help select the best material for designing improved packaging and handling of high-value Army material for the recommended MLTT system. The attributes of strength, toughness, safety, formability, and freedom from in-use deterioration durability will be addressed in selecting materials.

C.3.4 Materials Testing

The contractor will conduct testing to meet requirements of C.3(c).

C.3.5 Mock-Up

The contractor shall construct a scale model (table top) mockup of one MLTT container unit. The scale model shall be representative of the materials, construction, physical and mechanical principles of the design concept. Where feasible the mockup will have working components to illustrate mechanical concepts. The mockup will be used to demonstrate the principles and concepts of the final Design

C.3.6 Phase II Start of Work Meeting

A Start of Work Meeting will be held within forty-five (45) days of the execution of Modification P00003 which provides the necessary additional funding required for the Phase II effort. The Start of Work Meeting will be held at TACOM. The contractor shall prepare and submit Start of Work Meeting Minutes within seven (7) days after the Phase II Start of Work Meeting, in accordance with Data Item A003, Exhibit A, unless the parties mutually agree to hold it at a different location.

C.3.7 Phase II Progress/Final Program Meetings

C.3.7.1 Progress Meeting

A Progress Meeting will be held 90-150 days after the execution of Modification P00003, which provides the additional funding necessary for the Phase II effort. The Progress Meeting will be held to assess the overall progress made to date on the contract, share information, and identify problems that need to be addressed. The Progress Meeting will be held at the contractor's facility, unless the parties mutually agree to hold it at a different location.

C.3.7.2 Final Program Meeting

A Final Program Review Meeting will be held at TACOM within forty-five (45) days before the contract completion date listed in Section F. The purpose of the Final Program Meeting will be to assess the overall progress made to date on the contract, and to identify any remaining issues that need to be addressed prior to contract completion. The meeting will be held at TACOM, unless the parties mutually agree to hold it at a different location.

C.3.8 Phase II Progress Reports

The contractor will submit Progress Reports every 90 days during Phase II, in accordance with Data Item A001, Exhibit A, with the first such report due 90 days after the beginning of Phase II. These Progress Reports will report on the cost expenditures to date, including the expenditures since the last Progress Report. These reports will also report on the overall technical progress of the contract including any significant issues, problems, and accomplishments. However, no Progress Report will be required at the end of the Phase II effort, when the contractor will be required to submit a Final Report.

C.3.9 Phase II Final Report

The contractor shall submit a draft Final Report by 60 days before the contract completion date listed in Section F, in accordance with Data Item A002, Exhibit A. The government will evaluate that draft report and provide comments back to the contractor within fifteen (15) days. The contractor shall submit the Phase II Final Report by the contract completion date listed in Section F. The Phase II Final Report will provide a detailed description of the results of the research conducted under this contract. This detailed description will include the problems, findings, and recommendations pertaining to the construction, testing and performance of the recommended Modular Logistics Transport Technology system developed under this contract. The Phase II Final Report shall also include a description of all materials and equipment developed or purchased under this contract with government funds which are due to be delivered to the government at contract completion, in accordance with C.3.12.

C.3.9.1 Container Standardization for Joint Operations Report

The Phase II Final Report shall include as an addendum a Container Standardization for Joint Operations Report which shall be no longer than twenty (20) pages. This report shall provide recommendations on the standardization protocls for the new joint intermodal container. Recommendations shall include, but are not limited to, choice of materials, material comparisons, interior/exterior dimensions, weight, ease of use, flexibility for repair, strength to weight ratio, durability, reusability, manufacturability, routine maintenance requirements and other features. Materials to be reviewed shall include: cardboard, wood, metal and composites. The report shall focus on the appropriate types of composite materials that have superior qualities in standardized protocol areas. The report must not contain any proprietary information.

C.3.10 Phase II Travel

The contractor will make a total of no more than six (6) travel trips under Phase II. Each trip includes travel for two or more contractor employees. Travel will be interpreted as travel from Alkan's facility in Fairbanks, Alaska to a DoD, Army, Navy, Air Force, Marines or other defense facility. Also included are trips to suppliers, manufacturing facilities and specialized consultants when consultants when deemed necessary.

C.3.11 Phase II Period of Performance

Phase II will begin immediately upon the completion of Phase I and will last until the contract completion date listed in Section F. The contractor shall not commence work on Phase II unless, or until, adequate funds have been received for performance of Phase II as set forth in the schedule listed in Provision B.5.2.

C.3.12 Phase II Deliverables

The contractor will provide the following deliverables under Phase II:

a) The contractor shall submit Phase II Start of Work Meeting Minutes within 7 days after the Phase II Start of Work Meeting, in accordance with Data Item A003, Exhibit A and C.3.6.

b) The contractor shall submit Meeting Minutes within 7 days after the Phase II Progress Meeting and the Phase II Final Program Meeting, in accordance with Data Item A003, Exhibit A and C.3.7.

c) The contractor shall submit Quarterly Progress Reports every 90 days during Phase II, beginning 90 days after the start of Phase II, in accordance with Data Item A001, Exhibit A and C.3.8.

d) The contractor shall submit a draft Phase II Final Report by 60 days before the contract completion date listed in Section F, in accordance with Data Item A002, Exhibit A, and C.3.9.

e) The contractor shall submit the Phase II Final Report by the contract completion date listed in Section F, in accordance with Data Item A002, Exhibit A, and C.3.9 after receipt of government comments on the draft Phase II Final Report.

f) The contractor will deliver, at contract completion, one (1) scale model (table top) mock-up of the MLTT system to the government COTR at the address listed in the Section G "Communications" clause, unless another destination is specified by the government.

g) The contractor will deliver by the contract completion date listed in Section F those materials or equipment purchased or

developed under this contract at the government's expense and listed on the Final Report, to the government COTR at the address listed in the Section G "Communications" clause.

h) The contractor shall build a full size (approximate) 1,500 pound (lb) capacity MLTT by 1 Dec 06 which must be delivered within ten (10) days of completion to the address listed below:

Naval PHST Center
ATTN: Mr. Jeffrey Rozanski
201 Hwy 34 South, Bldg C-54
Colts Neck, NJ 07722-5023

i) The contractor shall submit a draft Container Standardization Report as an addendum to the Phase II Final Report, in accordance with C.3.9.1 and Data Item A002, Exhibit A, by 1 Nov 06. The government will have thirty (30) days to comment and respond back to the contractor. The contractor shall submit the final Container Standardization for Joint Operations Report by the completion date for Phase II listed in Section F.

C.3.13 Contractor Manpower Reporting (CMR)

C.3.13.1 The Office of the Secretary of the Assistant Secretary of the Army (Manpower & Reserve Affairs) operates and maintains a secure Army data collection site where the contractor will report ALL contractor manpower (including subcontractor manpower) required for performance of this contract. The contractor is required to completely fill in all the information in the format using the following web address: https://contractormanpower.army.pentagon.mil. The required information includes:

(1) Contracting Office, Contracting Officer, Contracting Officer's Technical Representative;
(2) Contract number, including task and delivery order number;
(3) Beginning and ending dates covered by reporting period;
(4) Contractor name, address, phone number, e-mail address, identity of contractor employee entering data;
(5) Estimated direct labor hours (including sub-contractors);
(6) Estimated direct labor dollars paid this reporting period (including sub-contractors);
(7) Total Payments (including sub-contractors);
(8) Predominant Federal Service Code (FSC) reflecting services provided by the contractor (and separate predominant FSC for each subcontractor, if different);
(9) Estimated data collection cost;
(10) Organizational title associated with the Unit Identification Code (UIC) for the Army Requiring Activity (the Army Requiring Activity is responsible for providing the contractor with its UIC for the purpose of reporting this information)
(11) Locations where contractor and sub-contractors perform the work (specified by zip code in the United States and nearest city, country, when in an overseas location, using the standardized nomenclature provided on web site);
(12) Presence of deployment or contingency contract language; and
(13) Number of contractor, and subcontractor employees deployed in this theater this reporting period (by country).

C.3.13.2 As part of its submission, the contractor will also provide the estimated total cost (if any) incurred to comply with this reporting requirement. Reporting period will be the period of performance not to exceed 12 months ending September 30 of each government fiscal year and must be reported by 31 October of each calendar year. Contractors may use a direct XML data transfer to the database server or fill in the fields on the web site. The XML direct transfer is a format for transferring files from a contractor's systems to the secure web site without the need for separate data entries for each required data element at the web site. The specific formats for the XML direct transfer may be downloaded from the web site.

C.4 Phase III Tasks/Objectives

During Phase III the contractor shall perform the following key tasks:

a. Demonstrate the Modular Logistics Transport Technology (MLTT) system for potential future use by, or in conjunction with, military ground vehicles focusing on materials by prototype construction of a lightweight Composite Prototype Hybrid ISO Container, a prototype Composite SECM Unit and a prototype Composite Quadcon Unit (three units total, as noted below). This Phase III effort will focus on the proposed MLTT concept and demonstrate these attributes as they relate to the following three systems:

1) One (1) prototype Hybrid ISO Container consisting of one composite ISO container (8 feet x 8 feet x 20 feet size) which is capable of being mounted on a 20 foot miltary trailer and has the following additional capabilities:

(i) Meets the external form factor, stacking and ISO 1161 corner casting requirements of the ISO 668 standard for types 1C.

(ii) Meets ISO container requirements to include the following unique capabilities:

(1) Payload: 26,000 lbs.

(2) Floor Load: 155 lbs.
(3) Electrical Waterfall (entry/exit ports one)
(4) Electrical Wiring (interior lighting only)

(iii) Review the capability of holding, securing and transporting a Container Roll-In/Out Platform (CROP) in a six-high stackable container.

(iv) Review the capability of securing payload to the interior floor via integral cargo tiedowns.

(v) Review the capability of being lifted and moved using a forklift, of being lifted using a 4 point lifting harness, of being scaled (climbed) by a standard human via an integral ladder, of being assembled into larger than 8 foot by 20 foot enclosures, of storing an integral ramp or steps and of storing Basic Issue Items (BII) on the outside of the container using a built-in external storage compartment.

(vi) Review the capability of securing Radio-frequency identification (RIF) tags to its exterior, of storing manifest paperwork on the outside of the container in an external document storage compartment, of receiving external electrical power and communications and passing them on to the interior.

(vii) Review the capability of being handled by LHS equipped prime movers such as Palletized Load System (PLS), Heavy Expanded Mobility technical Truck (HEMTT), Family of Medium Tactical Vehicles (FMTV), Load-Handling System (LHS) and Logistic Vehicle System (LVS) without the need of a Flatrack.

(viii) Review the capability of being rolled across flat surfaces via retractable or removable underside rollers.

2) One (1) Composite Shelter for the Shop Equipment Contact Maintenance, General Purpose Unit (SECM), capable of being mounted to a 1097 and 1152 HMMWV with B-kit. All applicable B-kit drawings and information will be provided to the contractor to facilitate design and construction.

3) One (1) Prototype Composite Quadcon Unit (based on drawings UC-2001 - UC 2081, slides 18-123).

b. Review the SECM prototype vehicle shelter as a potential candidate for retrofit opportunities in order to provide energy savings, lessen corrosion, and enhance war fighter protection (ballistic characteristics) for the current generation of tactical vehicle shelters. Included for each unit (Hybrid ISO Container, SECM and Quadcon) shall be a brief statement addressing estimated unit manufacturing cost and unit useful life expectancy.

c. Perform limited Finite Element Analysis (FEA) for major components to include, but not limited to, the Roof, Base, Side Panels, Cargo Loops, D-Rings, Fork Lift Pockets and lifting padeyes of the conceptual design for the prototypes.

d. Submit Quarterly Progress Reports in accordance with Data Item A001, and a Final Report, in accordance with Data Item A002, to provide a detailed description of the work and results obtained from the contractor's performance on the Phase III tasks. These results shall include reporting any significant findings, testing, FEA results, accomplishments, problems and results. These reports shall also be used to track and monitor cost expenditures that are incurred by the contractor as he performs the Phase III effort.

e. Submit an Operational Procedures Manuals for the prototype shelter equipment noted in C.4.a. These will be manuals covering all materials and equipment covered by manufacturer's warranties and operating instructions, including mechanical and electrical equipment. The Operational Procedures Manuals will be developed using contractor format. The manual will be submitted with the Draft Final Report, in accordance with C.8.3 and Data Item A002, Exhibit A.

C.4.1 Materials Testing

The contractor shall conduct tests to insure the composite materials shall comply with the following ASTM E 1925-4 requirements:

a. 7.20 Flame Resistance
b. 7.22 RWRS (Rigid Wall Relocatable Structure) Squareness
c. 7.23 Panel Flatness
d. 7.24 Roof Loads
e. 7.25 Floor Loads
f. 7.26 Door Loads
g. 7.33 Panel Impact
h. 7.37 ISO RWRS Compatibility Requirements
i. 8.1 Dimensions (comply with ISO 668)

C.4.2 Phase III Meetings

A Start of Work Meeting, Progress Meeting and a Final Program Review Meeting will be held under Phase III, as described below.

C.4.2.1 Phase III Start of Work Meeting

A Phase III Start of Work Meeting shall be held at TACOM (unless the parties mutually agree on another location) within forty-five (45) after the execution of Modification P00004 which provides the funding for the Phase III effort. The contractor shall prepare and submit Start of Work Meeting Minutes within seven (7) days after the Phase III Start of Work Meeting, in accordance with Data Item A003, Exhibit A.

C.4.2.3 Phase III Progress Meeting

A Phase III Progress Meeting will be held between 120 and 150 days after the execution of Modification P00004 which provides the funding for the Phase III effort. The Progress Meeting will be held to assess the overall progress made, to date, on the contract and to share information and identify problems that need to be addressed. The Progress Meeting will be held at the contractor's facility, unless the parties mutually agree to hold it at a different location. The contractor shall prepare and submit Progress Meeting Minutes within seven (7) days after the Phase III Progress Meeting, in accordance with Data item A003, Exhibit A.

C.4.2.4 Phase III Final Program Review Meeting

A Phase III Program Review Meeting will be held within forty five (45) days before the contract completion date listed in Section F. The purpose of the Final Program Review Meeting will be to assess the overall progress made to date on the contract and to identify any remaining issues that need to be addressed prior to contract completion. The Phase III Final Program Review Meeting will be held at TACOM unless the parties mutually agree otherwise. The contractor shall prepare and submit Meeting Minutes within seven (7) days after the Phase III final Program Meeting, in accordance with Data Item A003, Exhibit A.

C.5 Phase III Reports

C.5.1 Phase III Progress Reports

The contractor shall submit Progress Reports every 90 days during Phase III beginning 90 days after execution of Modification P00004 which provided the funding for Phase III. These reports shall be submitted in accordance with Data Item A001, Exhibit A, and may be submitted in combination with the Phase II Progress Reports (until Phase II is completed). However, no Progress Report will be required within the last 60 (sixty) days of the contract completion date listed in Section F. These Progress Reports will report on the cost expenditure, to date, including the costs expenditures incurred since the last Progress Report. These reports will also report on the overall technical progress of the contract including any significant issues, problems, and accomplishments.

C.5.2 Phase III Final Report

The contractor shall submit a Draft Final Report by 60 (sixty) days before the contract completion date listed in Section F, in accordance with Data Item A002, Exhibit A. The government COR will evaluate the draft report and provide comments back to the contractor within 15 (fifteen) days. The contractor shall submit the Final Report by the contract completion date listed in Section F, in accordance with Data Item A002, Exhibit A. The Phase III Final Report will provide a detailed description of the results of the research conducted under this contract, including under Phase III. This description will include the problems, findings and recommendations pertaining to the construction, testing and performance of the recommended SECM, Quadcom and Hybrid ISO container prototype developed under this contract. The Phase III Final Report shall also include a description of all the materials and equipment developed or purchased under this contract with government funds which are due to be delivered to the government at contract completion.

C.6 Phase III Travel

The contractor will make a total of 4 to 6 travel trips under the Phase III effort. each trip includes two or more contractor employees. This includes trips to suppliers, manufacturering facilities and specialized consultants when consultants are deemed necessary.

C.7 Phase III Period of Performance

Phase III will begin immediately upon the execution of Modification P00004 and will last until the contract completion date listed in Section F.

C.8 Phase III Deliverables

The contractor shall provide the following deliverables listed below under Phase III.

C.8.1 Phase III Meeting Minutes

The contractor shall submit Meeting Minutes after the Phase III Start of Work Meeting, after the Phase III Progress Meeting and after the Phase III Final Program Review Meeting, in accordance with Data Item A003 of Exhibit A and C.4.2.1, C.4.2.2 and C.4.2.3.

C.8.2 Phase III Progress Reports

The contractor shall submit Quarterly Progress Reports during Phase III, in accordance with Data Item A001 of Exhibit A and C.5.1.

C.8.3 Phase III Final Report

The contractor shall submit a Draft Final Report and a Final Report, in accordance with Data Item A002 of Exhibit A and C.5.2. The contractor shall deliver the Operational Procedures Manual with the Draft Final Report and the Final Report, in accordance with C.4.e. The materials or equipment purchased with Government funds shall be listed on the Final Report.

C.8.4 Delivery of Units

The contractor will deliver the following items, by the contract completion date listed in Section F, to the government at the addresses listed below. The contractor shall be responsible for paying the shipment costs of all items being provided to the government under this contract, including the return of Government Furnished equipment (GFE) and Government Furnished Property (GFP) listed in the contract.

(i) The prototype construction of one (1) composite Hybrid ISO Container (8 foot x 8 foot x 20 foot size) capable of being mounted on a 20 foot military trailer. This composite Hybrid ISO Container shall be delivered by the contractor, at contractro expense, to the following location unless the parties mutually agree otherwise:

Landoll Corporation
1900 North Street
Maryville, KS 66508

(ii) The prototype construction of one (1) composite Shop Equipment Contact Maintenance Unit, General Purpose (SECM), capable of being mounted to a 1097 and 1152 HMMWV with B-Kit. The Model 1097A2 HMMWV, composite SECM unit and the complete SECM Shleter Integration Equipment Package (GFP noted in H.18.3) shall be delivered by the contractor, at contractor expense, to the following location unless the parties mutually agree otherwise.

TACOM - Rock Island
ATTN: PM-SKOT (PM-SKOT/AMSTA-LC-CT, Mr. Brent Starkey)
1 Rock Island Arsenal
Rock Island, IL 61299-7430

(iii) The prototype construction of one (1) Composite Quadcon Unit and Shelving/Interior Furnishing (GFP noted in H.18.3) shall be delivered by the contractor, at contractor expense, to the following location unless the parties mutually agree othherwise:

TACOM - Rock Island
ATTN: PM-SKOT (PM-SKOT/AMSTA-LC-CT, Mr. Brent Starkey)
1 Rock Island Arsenal
Rock Island, IL 61299-7430

*** END OF NARRATIVE C0001 ***

SECTION F - DELIVERIES OR PERFORMANCE

F.5 DATA

All data deliverables under this contract shall be delivered electronically to the addressees and email addressess specified on the Contract Data Requirements List (CDRL), DD Form 1423, Exhibit A.

F.6 PERIOD OF PERFORMANCE

All work performed under this contract shall be completed by 30 Sep 08.

F.7 DELIVERABLES

The contractor shall provide the following deliverables under the contract for Phase I, Phase II and Phase III respectively:

F.7.1 Phase I Deliverables

The contractor shall provide the following deliverables under Phase I in accordance with Provision C.2.11:

a) Start of Work Meeting Minutes submitted within seven (7) days after the Phase I Start of Work Meeting, in accordance with Data Item A003, Exhibit A and C.2.6.
b) Progress Report submitted 60 days after award of the contract, in accordance with Data Item A001, Exhibit A and C.2.8.
c) Phase I draft Final Report submitted by 10 Jun 04, in accordance with Data Item A002, Exhibit A, and C.2.9.
d) Phase I Final Report submitted by 12 Jul 04, in accordance with Data Item A002, Exhibit A and C.2.9.

F.7.2 Phase II Deliverables

The contractor shall provide the deliverables listed in C.3.12 under Phase II, as well as the Manpower Report Requirement listed in C.3.13.

F.7.3 Phase III Deliverables

The contractor shall provide all the deliverables listed under C.8, as well as the Manpower Report listed in C.3.13.

*** END OF NARRATIVE F0001 ***

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H-17 ROUTING OF FIRST VOUCHER

The contractor hereby agrees to route the first two (2) vouchers submitted under this contract to the DCAA office located in Anchorage, Alaska. All subsequent vouchers may be submitted through the DCAA office located in Seattle, Washington. Questions on the locations of these offices or on how vouchers are submitted may be referred to the ACO, listed in the Section G "Communications" clause.

H-18 GOVERNMENT FURNISHED PROPERTY

H.18.1 The Government may furnish, from time to time, such items of Government-owned property as deemed necessary to assist the contractor in the performance of the Contract requirements.

H.18.2 Upon completion of the contract or in the event of termination of the contract, either partial or complete, all Government-Owned Property including both property furnished to the Contractor and property acquired by the Contractor for the account of the Government, which will have become surplus or excess to any remaining Contract requirements, shall be reported immediately by the Contractor to the Contracting Officer at the US TACOM LCMC, ATTN: AMSTA-AQ-ASGD, Warren, MI 48397-5000 for redistribution, shipping instructions, release or disposal, or other actions.

H.18.3 Specific Government Furnished Property which will be furnished to the contractor within 45 days of execution of Modification P00006 are as follows:

Item	Quantity	Serial Number	Acquisition Value
Model 1097A2 HMMWV	one (1)	18024	$ 80,000
Complete SECM Shelter Integration and Equipment Package (items as required) and other required storage containers and/or bins related to space claim need.	one (1)	1190	$ 19,000
All applicable unclassified technical manuals, drawings, and pertinent information for the B-Kit, SECM, CROP, Quadcon, 1097 and 1152 HMWWV and other PLS equipment, if available.			

H.18.4 Reserved.

*** END OF NARRATIVE H0001 ***